

What is claimed is:

1. An implantable medical graft, comprising:
  - a. a generally tubular body member comprising a film selected from the group consisting of metallic and pseudometallic materials and having a first surface,  
5 a second surface and a thickness intermediate the first surface and the second surface; and
  - b. at least a portion of the body member having a plurality of circumferential undulations formed in walls of the body member.
2. The implantable medical graft according to Claim 1, further comprising a plurality  
10 of microperforations passing through the thickness of the body member and communicating between the first surface and the second surface.
3. The implantable medical graft according to Claim 1, wherein the film is made of a metallic material selected from the group consisting of titanium, vanadium,  
15 aluminum, nickel, tantalum, zirconium, chromium, silver, gold, silicon, magnesium, niobium, scandium, platinum, cobalt, palladium, manganese, molybdenum and alloys thereof.
4. The implantable medical graft according to Claim 2, further comprising at least one of a plurality of non-undulated circumferential regions of the body member.
5. The implantable medical graft according to Claim 4, further comprising at least one  
20 of a plurality of suturing openings passing through the wall thickness of the at least one of a plurality of non-undulated regions of the body member.
6. The implantable medical graft according to Claim 4, wherein the wall thickness of the undulating regions is less than the wall thickness of the non-undulating regions.
7. The implantable medical graft according to Claim 6, wherein the thickness of the  
25 undulating regions is between about 3 – 7  $\mu\text{m}$  and the wall thickness of the non-undulating regions is between about 10 – 20  $\mu\text{m}$ .
8. The implantable medical graft according to Claim 7, wherein the at least a portion of a non-undulating region further comprises at least one of a plurality of suturing openings passing through the wall thickness.

9. The implantable medical graft according to Claim 8, wherein the at least one of a plurality of suturing openings further comprises a generally cruciform-shaped slot pattern.
- 5 10. The implantable medical graft according to Claim 8, wherein the at least one of a plurality of suturing openings further comprises a generally Y-shaped slot pattern.
11. The implantable medical graft according to Claim 4, further comprising at least one of a plurality of radially projecting barb members.
12. The implantable medical graft according to Claim 4, further comprising at least one of a plurality of suture members integrally extending along a longitudinal axis of the body member.
- 10 13. A method of making an implantable medical graft comprising the steps of:
- a. Providing a generally cylindrical substrate having a plurality of circumferentially extending undulations patterned along at least a portion of a longitudinal axis of the generally cylindrical substrate;
  - 15 b. Vacuum depositing a graft-forming material onto the generally cylindrical substrate; and
  - c. Releasing the deposited graft-forming material from the substrate.
14. The method according to Claim 13, wherein the graft-forming material is selected from the group consisting of biocompatible metals and pseudometals.
- 20 15. The method according to Claim 13, further comprising the step of forming a plurality of microperforations passing through the thickness of the deposited graft-forming material.
- 25 16. The method according to Claim 13, further comprising the step of forming at least one of a plurality of suturing openings through the wall thickness of at least one non-undulating region of the deposited graft-forming material.